Smart Modern Farm under control!

MANAGE AND CONTROL YOUR FENCING CONVENIENTLY FROM YOUR MOBILE PHONE THROUGH MOBILE APPLICATION **fencee Cloud** OR FROM THE WEB INTERFACE

How does a smart farm work?

>

The central gateway is connected to the Internet through Wi-Fi. The cloud collects data from genergizers and control monitors. With the help of the gateway, you can easily set up and control individual devices from a single location through mobile application fencee Cloud or the web interface.

Cloud is a secured place on the Internet through which all paired devices communicate together. Thanks to this, it is possible to not only share data with other users but also check, set up and control the fencing, practically from anywhere. The only condition is Internet connection. Through the Cloud, you both control the energizers and check them through notifications immediately displayed through your phone or e-mail.

🔊 RF energizer connected to the fencing communicates with the central gateway from which you can easily control and set up values for each energizer.

🔊 The monitor on the fencing measures the voltage value. Where the measured voltage drops below the set limit, the monitor sends a warning to the gateway which then sends notifications to your phone and e-mail.

Advantages of Smart Farm!

CURRENT INFORMATION
Current online information about all devices

PHONE CONTROL
Control and monitor through mobile application

ALARM SIGNALIZATION
Problem notification immediately in your phone or e-mail
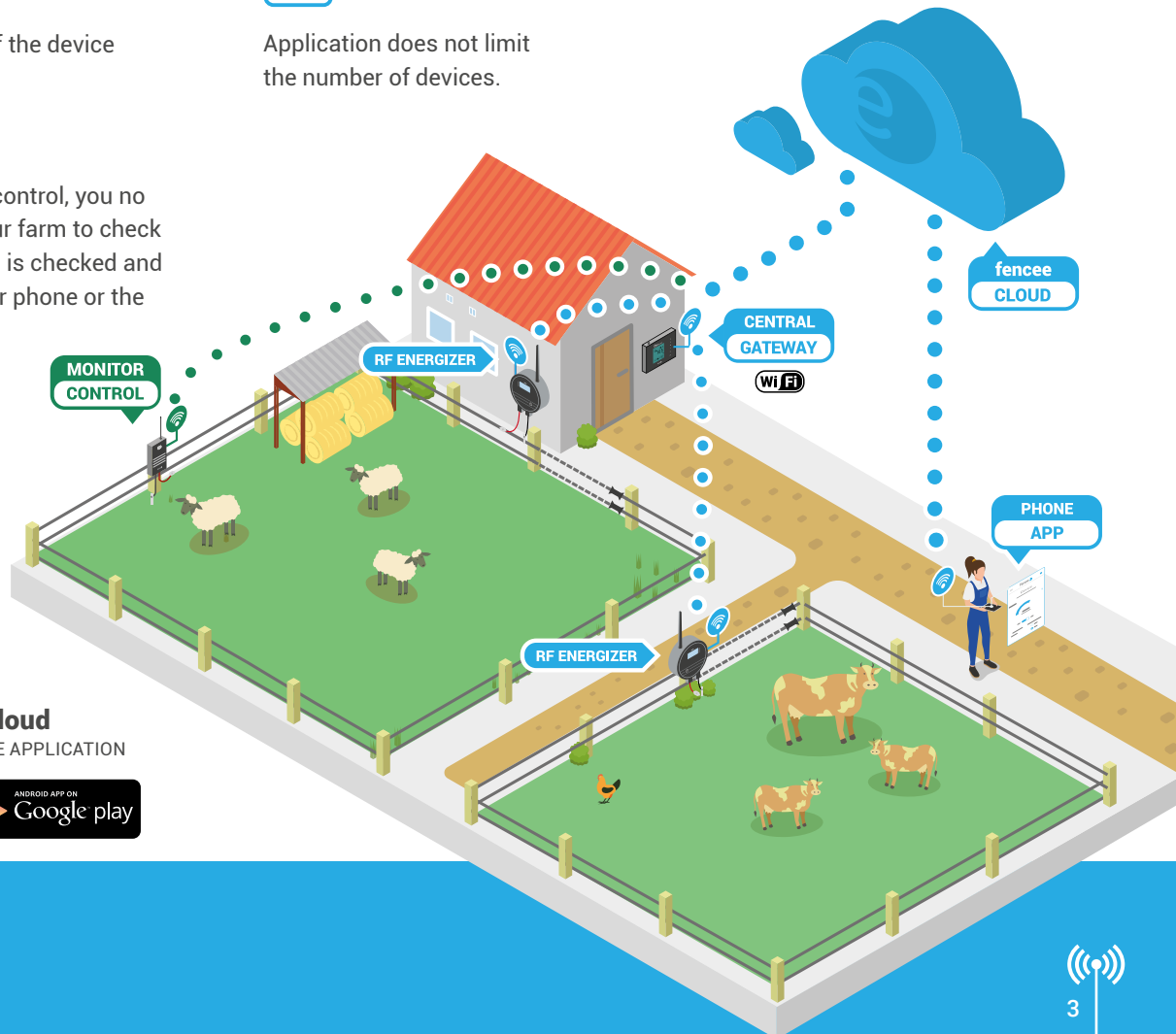
NO SIM CARD
No cost of operation of the device

NO LIMITATION
Application does not limit the number of devices.

TIME SAVING
Thanks to the remote control, you no longer have to visit your farm to check the fencing. Everything is checked and controlled through your phone or the web.

fencee Cloud
FREE MOBILE APPLICATION

SMART FARMING

Download on the App Store

ANDROID APP ON Google play

MONITOR CONTROL

RF ENERGIZER

CENTRAL GATEWAY

Wi Fi

fencee CLOUD

PHONE APP

RF ENERGIZER

Keep track with mobile application **fencee Cloud**

SMART∂FARMING

WELL-ARRANGED GRAPHS
Graphical depiction of the course of measured values over the last 7 days

LIST OF DEVICES
Well-arranged lists of all connected devices according to the superior gateways

ONLINE ALARMS
In the event of an exceptional breakdown situation – an immediate alarm to your phone or e-mail

fencee Cloud
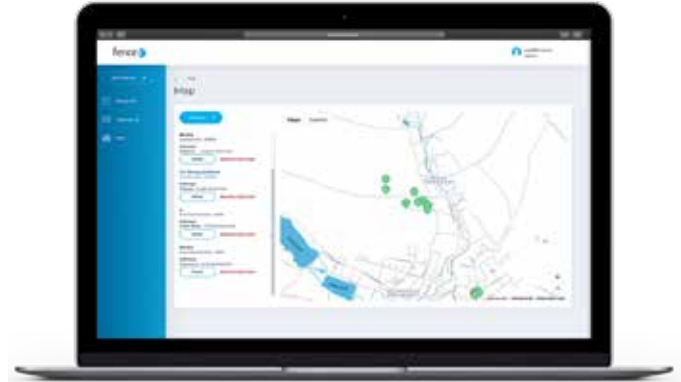MOBILE APPLICATION TO DOWNLOAD

Download on the
App Store

ANDROID APP ON
Google play

MAP BASE

For easy orientation in your smart farm, you can deploy devices in particular locations on the map. From the map, you can easily click on the respective location to get to the relevant device.

MONITOR VALUES

Values to be set up and monitored through the fencee Cloud application:

⚡	Voltage	🔋	Battery state
⏻	Mode	⏚	Earthing
❗	Alarm	⚙	Status
⛏	Performance	Ω	Impedance

CONTROL AND CHECK THE FENCING FROM ANYWHERE

5

Smart Farm Options

WELL-ARRANGED VALUES TO BE REMOTELY SET UP AND MONITORED FROM A SINGLE LOCATION

Voltage
Voltage measured in the fencing.

Battery State
Monitor the state of batteries in all connected devices.

Status
Display the energizer status. There are several statuses available:
ON – switched on, functional
STANDBY – switched off (i.e. in standby mode), can be switched on remotely
OFF – switched off, cannot be switched on remotely

Mode
It is possible to switch between energizer outputs (modes) to 100 % or 50 % of the output.
Decreased output may be appropriate, for example, in relation to sensitive animals or to save the battery.

Alarm
User-set voltage threshold. Activation of the alarm if the voltage drops below the limit.

Earthing Quality
The energy DUO RF EDX energizer evaluates the earthing quality by means of a control earthing electrode.

Power output
Based on the current impedance of the fencing, the energizer adjusts the power output.
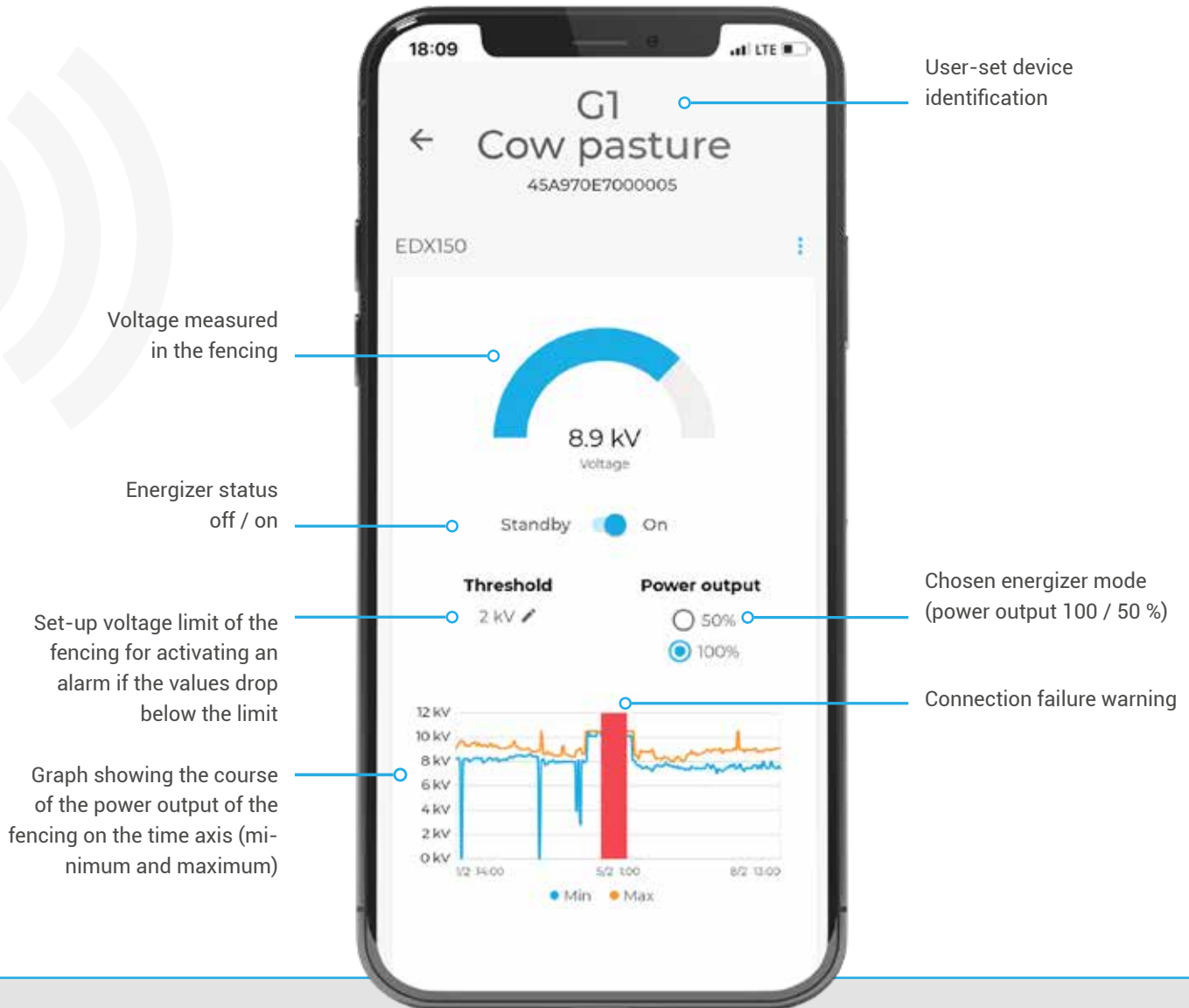The energizer output is increased based on the increased impedance.

Impedance
The fencee energy RF EDX energizer measures the impedance of the fencing and adjusts the output based on such values. The impedance of the fencing changes, in particular, due to the vegetation growing through the fencing or due to the deteriorating characteristics of the conductors.

Everything **Well-arranged!**

WELL-ARRANGED DEPICTION OF IMPORTANT VALUES IN YOUR MOBILE PHONE, TABLET OR COMPUTER

User-set device identification

Voltage measured in the fencing

Energizer status off / on

Set-up voltage limit of the fencing for activating an alarm if the values drop below the limit

Graph showing the course of the power output of the fencing on the time axis (minimum and maximum)

Chosen energizer mode (power output 100 / 50 %)

Connection failure warning

18:09   LTE

G1
Cow pasture
45A970E7000005

EDX150

8.9 kV
Voltage

Standby ⬤ On

Threshold   **Power output**
2 kV ✎   ○ 50%
         ◉ 100%

12 kV
10 kV
8 kV
6 kV
4 kV
2 kV
0 kV
1/2 14:00   5/2 1:00   8/2 13:00

● Min   ● Max

FENCE Wi Fi
GATEWAY GW100

- **REMOTE CENTRAL CONTROL AND CHECK OF RF ENERGIZERS**
- **COMMUNICATION WITH THE CONTROL MONITOR**

The central gateway is connected to the Cloud through Wi-Fi. By means of the Cloud, you can control all connected devices from anywhere in the world with Internet coverage through application in your mobile phone or the web interface.

- The Internet control is not limited by distance.
- The software is always up-to-date, with an upgrade option through the Internet.
- A well-arranged display with information on all devices
- A detailed display of the parameters of individual devices
- Power supply + backup battery
- Connection of all fencee RF devices

Connection to the Cloud

12 Control of up to 12 devices
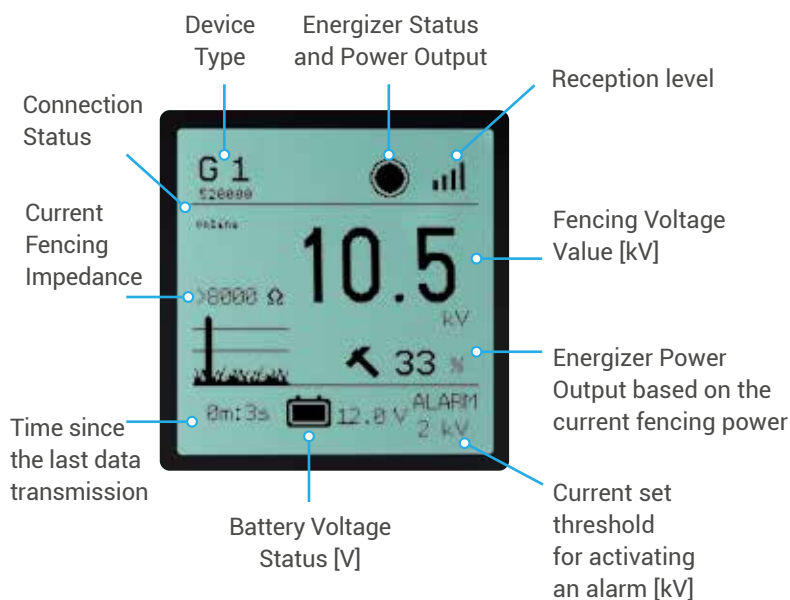
Back-up power supply source

Alarm signalization

**CONNECTION TO
FENCE WiFi GATEWAY GW100 through:**
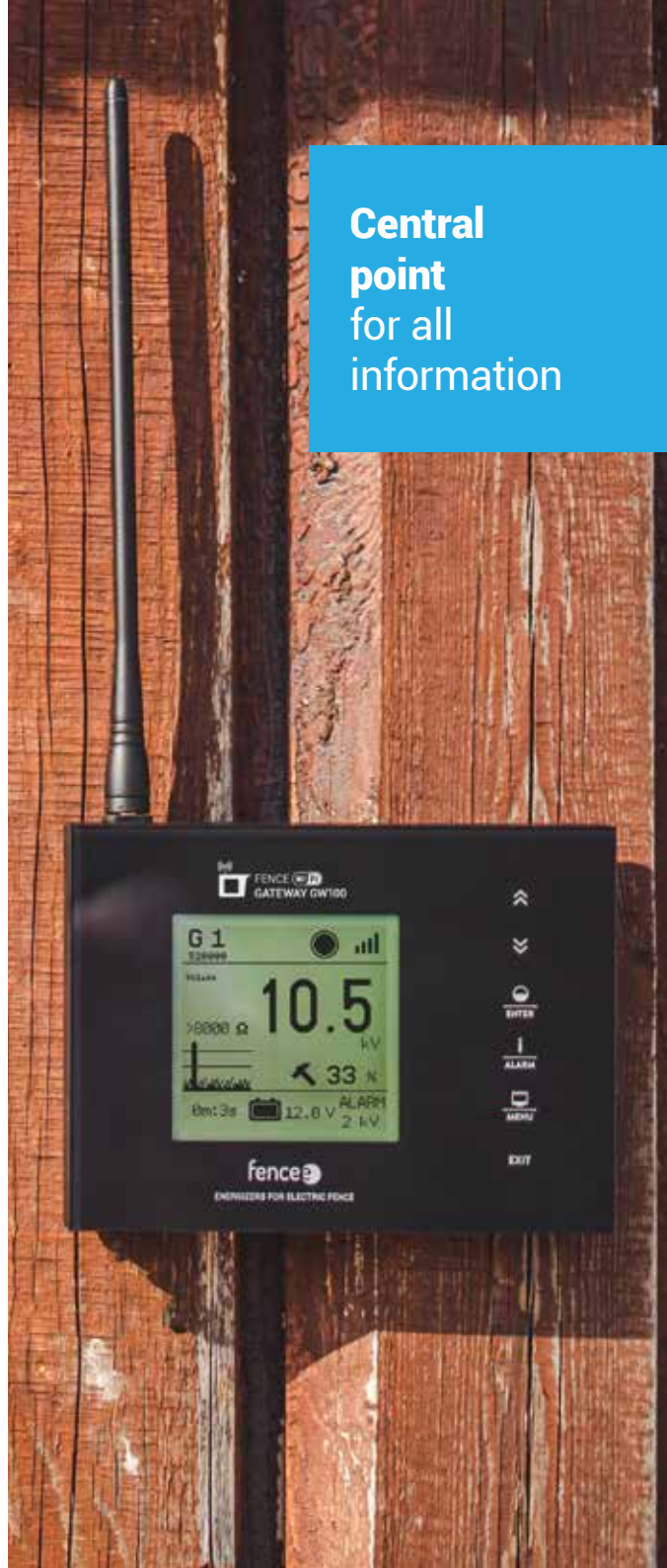- External antenna
- External alarm or siren

Technical Parameters	FENCE WiFi GATEWAY GW100
LCD DISPLAY	✔
ALARM SYSTEM	✔
EXTERNAL ANTENNA SMA CONNECTOR	✔
Wi-Fi CONNECTION	✔
BASIC ANTENNA COVERAGE	up to 10 km
EXTERNAL ANTENNA COVERAGE	up to 30 km
TRANSMISSION FREQUENCY	869,525 MHz
TRANSMITTING POWER	+22 dBm
BACKUP BATTERY	9,6 V - 800 mAh
POWER SUPPLY	230 V / 50 Hz, 14 VDC
CONSUMPTION	max 300 mA
DIMENSIONS	165 × 116 × 35 mm
WEIGHT	420 g

Detailed Screen

Well-arranged depiction of available information on the relevant device

Device Type

Energizer Status and Power Output

Reception level

Connection Status

Current Fencing Impedance

Time since the last data transmission

Fencing Voltage Value [kV]

Energizer Power Output based on the current fencing power

Battery Voltage Status [V]

Current set threshold for activating an alarm [kV]

Central point for all information

More than power

energy DUO RF — EDX

STRONG COMBINED RF ENERGIZER WITH POWER OUTPUT 8-15 J

You can control the energizer through mobile application fencee Cloud providing an opportunity to control the energizer practically from anywhere in the world with Internet coverage. FENCE WiFi GATEWAY GW100 needs to be installed.

If you connect to a lower version of FENCE GATEWAY GW10 (without Wi-Fi), you will be able to control the energizer only from such a gateway.

UP TO 120 km FENCE	JOULE 8 - 15 POWER	230 V ~ 12 V POWER SUPPLY

- Connection to the Cloud
- Mobile phone control
- Current information
- Alarm signalization

- Basic antenna coverage up to 10 km
- External antenna coverage up to 30 km

AVERAGE	290 mm
DEPTH	108 mm
WEIGHT	3650 g

Technical Parameters	energy DUO RF EDX80	energy DUO RF EDX100	energy DUO RF EDX120	energy DUO RF EDX150
POWER SUPPLU SOURCE SOURCE CONSUMPTION	**230 V ~** / 6 – 11 W **12 V** ⚡ 200 – 750 mA	**230 V ~** / 6 – 14 W **12 V** ⚡ 200 – 850 mA	**230 V ~** / 6 – 17 W **12 V** ⚡ 200 – 1000 mA	**230 V ~** / 6 – 21 W **12 V** ⚡ 200 – 1250 mA
INPUT ENERGY	11 J	13 J	15 J	20 J
OUTPUT ENERGY	8 J	10 J	12 J	15 J
OUTPUT VOLTAGE	10000 V	10000 V	10500 V	10500 V
OUTPUT VOLTAGE 500 Ω	7000 V	7000 V	7500 V	7500 V
LCD DISPLAY	✔	✔	✔	✔
ON / OFF	✔	✔	✔	✔
LED ON / OFF	✔	✔	✔	✔
LED IMPULSE	✔	✔	✔	✔
LED LOW BATTERY VOLTAGE	✔	✔	✔	✔
LED LOWER OUTPUT 50%	✔	✔	✔	✔
LED ERROR CHECK	✔	✔	✔	✔
LED IMPULSE BARGRAPH	✔	✔	✔	✔
TIME DELAY	✔	✔	✔	✔
EXTERNAL ANTENNA SMA CONNECTOR	✔	✔	✔	✔
EARTHING 1 m	4×	5×	5×	6×
EL. FENCING NETS	22×	27×	32×	38×

LED Bargraphs
Visual information on the state of the fencing

Earthing measurement
Green clamp for measuring the earthing quality

Reduced power output
Yellow clamp for decreased output

Power switching
Manual switching between high and low power outputs. Battery saving option

LCD display
Big graphical LCD display showing all important information.

Battery management
Check and management of the battery

No SIM card
No other cost of operating the device

Setting buttons
Simple and easy to use and setting.

Time delay 50 s
Delay where power output is increased to the maximum level, for your safety

Combined operation
Power supply at 230 V or from a common 12 V battery, usable also as the backup power supply source

Powerful
and reliable
in all situations

COMBINED RF ENERGIZER WITH REMOTE CONTROL

- With GATEWAY WiFi GW100, you can control PDX energizers from your mobile phone anywhere in the world with the use of the fencee Cloud application
- If you connect to a lower version of FENCE GATEWAY GW10 (without Wi-Fi), you will be able to control the energizer by means of a remote control or through the gateway.
- Basic antenna coverage up to 10 km
- External antenna coverage up to 30 km

UP TO
70 km
FENCE

JOULE
1 - 7
POWER

**230 V ~
12 V**
POWER
SUPPLY

Connection to the Cloud

Mobile phone control

Current information

Alarm signalization

power DUO PDX70

fencee

AVERAGE	210 mm
DEPTH	66 mm
WEIGHT	1800 g

Technical Parameters	power DUO RF PDX10	power DUO RF PDX20	power DUO RF PDX30	power DUO RF PDX40	power DUO RF PDX50	power DUO RF PDX70
POWER SUPPLY SOURCE SOURCE CONSUMPTION	**230 V ~** / 3 W **12 V** 40 – 100 mA	**230 V ~** / 5 W **12 V** 40 – 160 mA	**230 V ~** / 5 W **12 V** 80 – 260 mA	**230 V ~** / 9 W **12 V** 140 – 340 mA	**230 V ~** / 9 W **12 V** 100 – 440 mA	**230 V ~** / 12 W **12 V** 300 – 770 mA
INPUT ENERGY	1,4 J	3 J	4,5 J	5,7 J	7,5 J	10 J
OUTPUT ENERGY	1 J	2J	3 J	4 J	5 J	7 J
OUTPUT VOLTAGE	9000 V	12000 V	11200 V	10000 V	11000 V	10500 V
OUTPUT VOLTAGE 500 Ω	5000 V	6000 V	6400 V	5500 V	6600 V	7500 V
ON / OFF	✓	✓	✓	✓	✓	✓
LED ON / OFF	✓	✓	✓	✓	✓	✓
LED IMPULSE	✓	✓	✓	✓	✓	✓
LED LOW BATTERY VOLTAGE	✓	✓	✓	✓	✓	✓
LED LOWER POWER OUTPUT 50%	✓	✓	✓	✓	✓	✓
LED ERROR CHECK	✓	✓	✓	✓	✓	✓
LED IMPULSE BARGRAPH	✓	✓	✓	✓	✓	✓
TIME DELAY						✓
EARTHING 1 m	1×	2×	2×	3×	3×	3×
EL. FENCING NETS	3×	5×	6×	6×	8×	14×
DATA ENCODING	✓	✓	✓	✓	✓	✓
EXTERNAL ANTENNA SMA CONNECTOR	✓	✓	✓	✓	✓	✓

UP TO 10 km RANGE

power DUO RF PDX Hand Controller

All important information is displayed on the control display.

- Convenient and safe switching off and on the fencing remotely
- Information on a decline in voltage of the fencing below the set level
- Notifications of the battery voltage
- Lost reception notifications
- 1 control for 6 energizers | 3 controls for 1 energizer
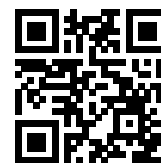
Learn more about the power DUO RF energizers

Monitors, measures and informs

Monitor MX10

REMOTE MONITORING OF FENCING VOLTAGE

It monitors critical points and immediately informs about the voltage decline. It measures the fencing voltage and sends data to the gateway.

- An option of connecting more monitors to one fence – division of a single fence into more zones
- Basic antenna coverage up to 10 km
- External antenna coverage up to 30 km
- Battery life time 1 year / the entire season
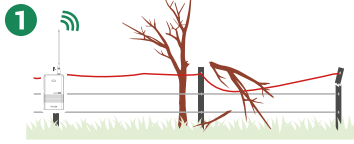
Connection to the Cloud

Magnet control

LED indication

IP44 protection

Easy connection by means of the FASTON connector

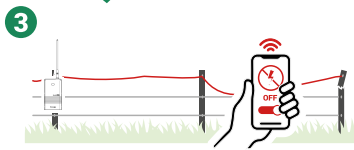Monitor MX10
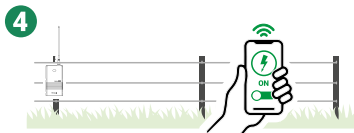
fencee

How does it work?

❶ The monitor recognizes a decline in the fencing voltage and sends information to the central gateway.

❷ The gateway sends an alarm within a few seconds.

❸ You can switch off the power supply to the fencing conveniently through the fence Cloud application and eliminate a problem.

❹ Once the problem is eliminated, you can switch on the fencing through the application and measure the fencing with the use of a tester.

| Technical Parameters	Monitor MX10
LED INDICATION	✔
SOUND ALARM	✔
MAGNETIC SET-UP CONTROL	✔
EXTERNAL ANTENNA SMA	✔
TRANSMISSION FREQUENCY	869,525 MHz
TRANSMITTING POWER	+22 dBm
BATTERY	2 × C LR14
DIMENSIONS	78 × 144 × 42 mm
WEIGHT	325 g

Monitor Installation Options
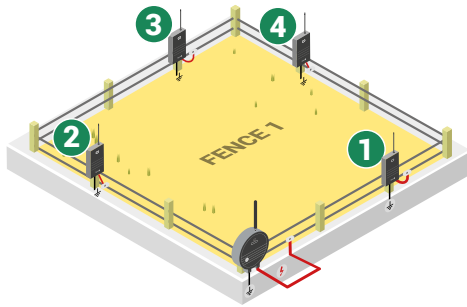
Standard installation

Fencing divided into sections. If the voltage of a monitor drops, the section and location of the problem can be easily identified.
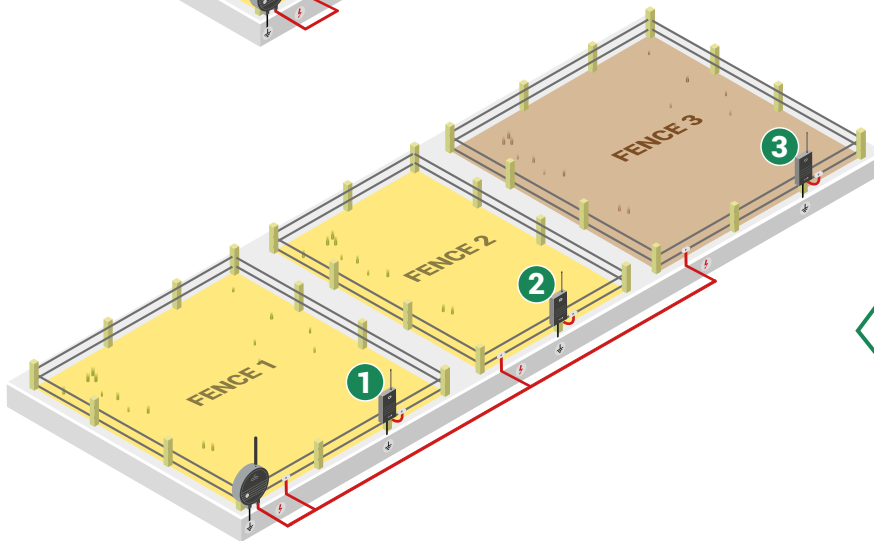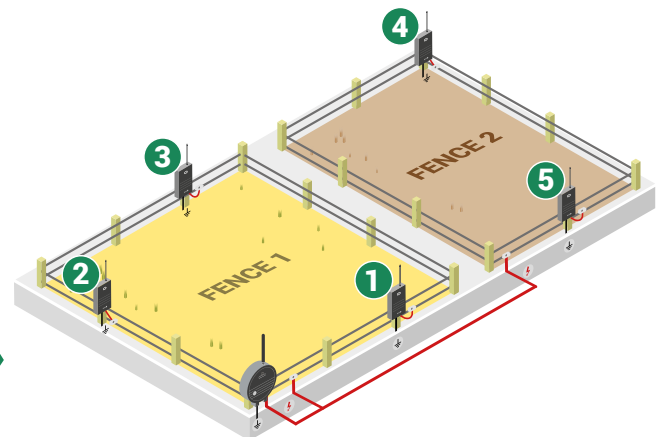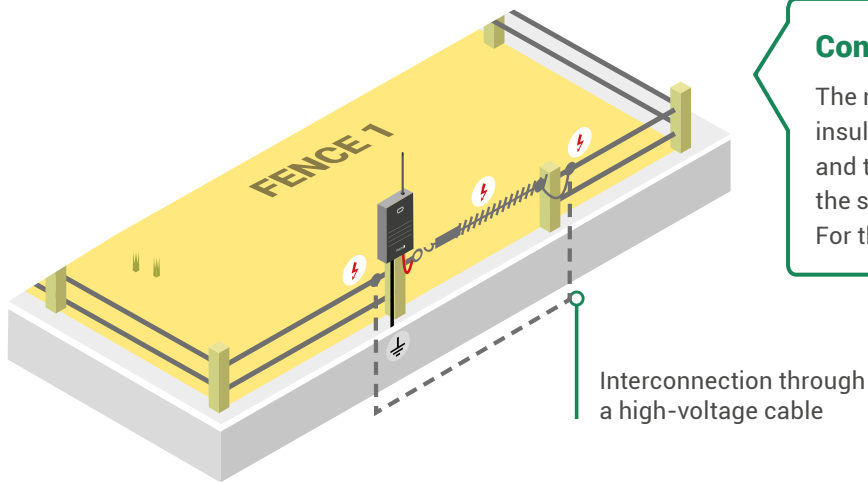
For access to the fencing

Installation for an easy identification of the fencing with a defunct fence.

For access to the fencing and in problematic locations

Installation for an easy identification of the fencing with a defunct fence or the location where problems may occur frequently, e.g. by the forest, by the water, in locations with dense vegetation.

Control installation for closing a gate

The monitor can also be installed on the gate insulator eye. If the handle hook is disconnected and the eye lacks voltage, the monitor evaluates the situation and sends an alarm to the gateway. For the connection example, see the drawing.

Interconnection through a high-voltage cable

TIP Put the monitor in the locations where voltage needs to be controlled (fencing entrance) or where frequent problems, for example, with vegetation, by the forest, by the water, or a disconnected fencing gate, can be expected.

Learn more about the Monitor MX10

Smart Farm Devices

RF energizer
energy DUO RF EDX

RF energizer
power DUO RF PDX

Central GATEWAY
GW100 WiFi and GW10

Control
Monitor MX10

Remote control
PDX Hand

External
antenna

FENCE **GATEWAY** GW10

- **REMOTE CENTRAL CONTROL AND CONTROL OF RF ENERGIZERS**
- **COMMUNICATION WITH CONTROL MONITOR**

Information on all fences in a single device
Check and control your fencing conveniently from a single location.

- A well-arranged display with information on all devices
- A detailed display of the parameters of individual devices

6 Control of up to 6 devices

i Current information

Power supply source

Alarm signalization

FENCE GATEWAY GW10 serves for controlling connected devices from a single location but cannot be connected to Wi-Fi and controlled through the fencee Cloud application.
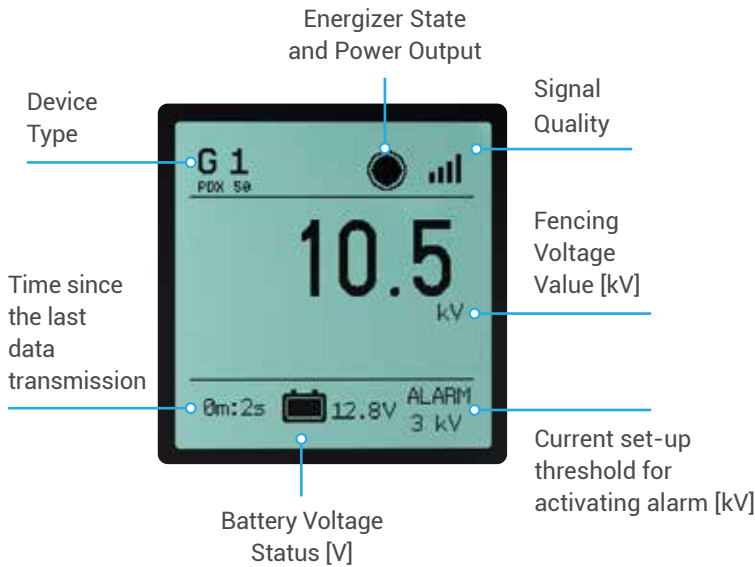
TO BE CONNECTED TO FENCE GATEWAY GW10:

- External antenna
- External alarm or siren

Detailed Screen

Well-arranged depiction of all available information on a particular device

Energizer State and Power Output

Device Type

Signal Quality

G 1
PDX 50

10.5
kV

Time since the last data transmission

Fencing Voltage Value [kV]

0m:2s 12.8V ALARM 3 kV

Battery Voltage Status [V]

Current set-up threshold for activating alarm [kV]

Technical Parameters	FENCE GATEWAY GW10
LCD DISPLAY	✓
ALARM SYSTEM	✓
EXTERNAL ANTENNA SMA CONNECTOR	✓
BASIC ANTENNA	up to 10 km
EXTERNAL ANTENNA	up to 30 km
TRANSMISSION FREQUENCY	869,525 MHz
TRANSMITTING POWER	+22 dBm
BACKUP BATTERY	9,6 V - 800 mAh
POWER SUPPLY	230 V / 50 Hz, 14 VDC
CONSUMPTION	max 300 mAh
DIMENSIONS	165 × 116 × 35 mm
WEIGHT	420 g

Well-arranged Display

It displays all connected devices. You can keep track of the states and outputs of devices and the reception quality. The battery statuses of individual devices are well-arranged. Data update is notified.

G1 ● 11
G2 ◐ 7
↳ MA₂ 7
↳ MB₂ 7
G3 ○ 0
MC 9

Sound alarm

Device type

Energizer state and power output

Last measured voltage of the fencing

Reception quality

Battery state

Learn more about the FENCE GATEWAY GW10

SMART⊖FARMING

PRODUCTS WITH RF TECHNOLOGY
FOR REMOTE CONTROL AND CHECK OF THE FENCING

ZLATÝ Klas 2019

SMART FARMING

Czech product

Smart Farm Reviews

"My parents no longer have to go to check the fencing every morning. If there is a problem, the gateway activates an alarm, which I consider as the biggest advantage."
Pavlína N., Lhota u Vsetína

"I have the gateway connected as the central control and alarm, but I have the remote control with me all the time when I move around the fencing. I consider as a great advantage that I don't have to pay additional fees for SIM cards."
Petr B., Litoměřice

"I have 3 fences connected to the gateway so I keep track of all devices and save a lot of time. Before that, I had to go check the fencing. Every time anything goes wrong, I learn about it immediately."
Adam M., Beskydy

fencee⊖ Electric **fencing**

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www.**fencee**.eu
www.**fenceefarm**.com
www.**fenceecloud**.com